



**ANALYTICAL EXACT SOLUTION OF THE
MULTI-DIMENSIONAL GENERALIZED
LANGEVIN EQUATION**

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Abstract

We present in this paper an exact analytical solution of the generalized Langevin equation in the multi-dimensional case. By repeating the results of the two-dimensional ones, the strategies of the derivation are verified severely to be reasonable and correct. Theoretically it has opened up a practical road for the study of many complex stochastic problems such as the deformation of compound nuclei and so on.

Keywords and phrases: exact analytical solution, generalized Langevin equation.

